SAFETY PRECAUTIONS

SERVICE WARNING

Only qualified service technicians who are familiar with safety checks and guidelines should perform service work. Before replacing parts, disconnect power source to protect electrostatically sensitive parts. Do not attempt to modify any circuit unless so recommended by the manufacturer. When servicing the receiver, use an isolation transformer between the line cord and power receptacle.

SERVICING THE HIGH VOLTAGE AND CRT

Use EXTREME CAUTION when servicing the high voltage circuits. To discharge static high voltage, connect a 10K ohms resistor in series with a test lead between the receiver ground and CRT anode lead. DO NOT lift the CRT by the neck. Always wear shatterproof goggles when handling the CRT to protect eyes in case of implosion.

X-RAY RADIATION AND HIGH VOLTAGE LIMITS

Be aware of the instructions and procedures covering X-ray radiation. In solid-state receivers and monitors, the CRT is the only potential source of X-rays. Keep an accurate high voltage meter available at all times. Check meter calibration periodically. Whenever servicing a receiver, check the high voltage at various brightness levels to be sure it is regulating properly. Keep high voltage at rated value, NO HIGHER. Excessive high voltage may cause X-ray radiation or failure of associated components. DO NOT depend on protection circuits to keep voltage at rated value. When troubleshooting a receiver with excessive high voltage, avoid close contact with the CRT. DO NOT operate the receiver longer than necessary. To locate the cause of excessive high voltage, use a variable AC transformer to regulate voltage. In present receivers, many electrical and mechanical components have safety related characteristics which are not detectable by visual inspection. Such components are identified by a # on both the schematic and the parts list. For SAFETY, use only equivalent replacement parts when replacing these components.

GENERAL GUIDELINES

Perform a final SAFETY CHECK before returning receiver to customer. Check repaired area for poorly soldered connections, and check entire circuit board for solder splashes. Check board wiring for pinched wires or wires contacting any high wattage resistors. Check that all control knobs, shields, covers, grounds, and mounting hardware have been replaced. Be sure to replace all insulators and restore proper lead dress.

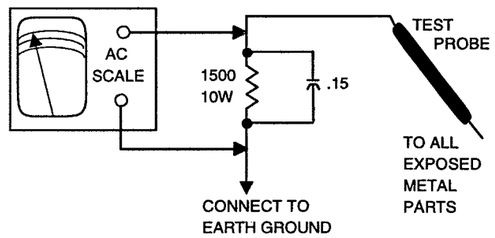
SAFETY CHECKS -- FIRE AND SHOCK HAZARD

Cold Leakage Checks for Receivers with Isolated Ground

Unplug the AC cord, connect a jumper across the plug prongs, and turn the power switch on (if applicable). Use an ohmmeter to measure the resistance between the jumped AC plug and any exposed metal cabinet parts such as antenna screw heads, control shafts, or handle brackets. Exposed metal parts with a return path should measure between 1M ohms and 5.2M ohms. Parts without a return path must measure infinity.

Hot Leakage Current Check

Plug the AC cord directly into an AC outlet. DO NOT use an isolation transformer. Use a 1500 ohms, 10W resistor in parallel with a .15µF capacitor to connect between any exposed metal parts on the receiver and a good earth ground. (See figure below.) Use an AC voltmeter with at least 5000 ohms per volt sensitivity to measure the voltage across the resistor. Check all exposed metal parts and measure voltage at each point. Voltage measurements should not exceed .75VAC, 500µA. Any value exceeding this limit constitutes a potential shock hazard and must be corrected. If the AC plug is not polarized, reverse the AC plug and repeat exposed metal part voltage measurement at each point.



HIGH VOLTAGE SHUTDOWN TEST

After servicing the high voltage circuits, test the shutdown circuit by momentarily placing a 10K ohms resistor across R593 (between J240 and J241). The receiver should go into shutdown losing sound and raster. To return the receiver to normal operation, unplug the power cord for at least 5 seconds.

The listing of any available replacement part herein in no case constitutes a recommendation, warranty, or guarantee by SAMS Technical Publishing as to the quality and suitability of such replacement part. The numbers of the listed parts have been compiled from information furnished to SAMS Technical Publishing by the manufacturers of the specific type of replacement part listed.

Reproduction or use, without express permission, of editorial or pictorial content, in any manner, is prohibited. No patent liability is assumed with respect to the use of the information contained herein.

© 2001 SAMS Technical Publishing

5436 West 78th Street
Indianapolis, IN 46268-4149

Printed in the United States of America 5 4 3 2 1

01PF01799

0 81262 04452 0

SET 4452

MODEL PR1330B101

PHILIPS MAGNAVOX

PHOTOFACT® Technical Service Data

4452

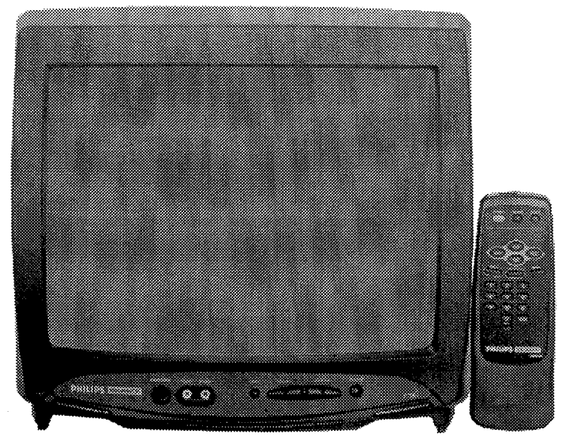
INDEX

GridTrace Location
Main Board 3
High Voltage Shutdown Test 1
IC Functions 1
Important Parts Information 1
Miscellaneous Adjustments 1
Parts List 3, 4
Placement Chart 1
Safety Precautions 1
Schematic Component Location 2
Schematic Notes 2
Schematics
Power Supply 2
System Control 2
Television 2
Test Equipment 4
Tuner Information 1

For Supplier Address,
See PHOTOFACT Annual Index

PHILIPS MAGNAVOX

Model PR1330B101



Essential coverage for servicing a television receiver...

- **Schematics**
- **Component locations**
- **Parts list**

Coverage includes these additional models:

MODELS	MODELS
MT1301B101	PR1913X101
MT1901B101	PR1929C101
PR1335B101	PR1930B101
PR1910B101	

SAMS™ Technical Publishing

JUNE 2001 SET 4452

4452

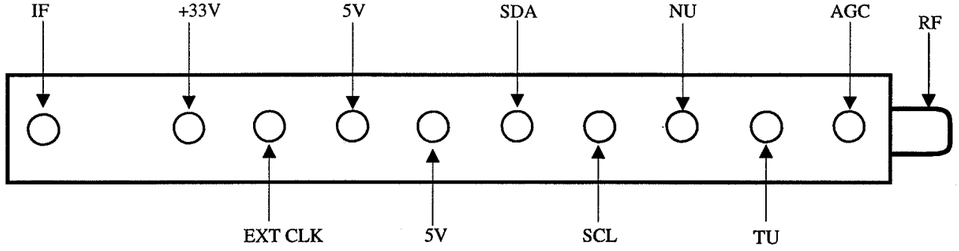
TUNER INFORMATION

TUNER VOLTAGE CHART

Pin		VHF Low Band	VHF High Band	UHF Band
1	(AGC)	2.0V	2.0V	2.0V
2	(TU)	1.3V	3.8V	5.5V
3	(AS)	0V	0V	0V
4	(SCL)	4.7V	4.7V	4.7V
5	(SDA)	4.7V	4.7V	4.7V
6	(5V)	5.0V	5.0V	5.0V
7	(5V)	5.0V	5.0V	5.0V
8	(EXT CLK)	0V	0V	0V
9	(+ 33V)	34.0V	34.0V	34.0V
10	(IF)	0V	0V	0V

NOTE: VHF Low Band voltages taken on channel 2.
VHF High Band voltages taken on channel 7.
UHF Band voltages taken on channel 14.

TUNER TERMINAL GUIDE



Important Parts Information

- The parts listed here are those not usually available from a well-stocked supply cabinet or bin.
- Where items may be replaced with equivalent parts, several alternates are shown from participating vendors.
- On the parts lists, safety items are marked with a # to remind you that only exact replacements are recommended for these items.
- When ordering parts, state the model number, part number, and description.

Obtaining Parts

Many of these parts are available from your local Sams authorized distributor or the manufacturer of the equipment. Call Sams for the name of your nearest distributor:

800-428-7267

Or consult the Sams *Annual Index* for the address of the original equipment manufacturer.

Participating Vendors

Information on test equipment and replacement parts is listed in these pages for the following participating vendors. Consult the Sams *Annual Index* for their current address.

- NTE Electronics, Inc. (NTE)
- Sencore, Inc.

MISCELLANEOUS ADJUSTMENTS

+B

Connect a voltmeter to the cathode of D651. Adjust VR661 for 105V ±.5V in 13" sets and 114V ±.5V in 19" sets.

SERVICE MODE

To enter the service mode press the power button on the receiver and tune in a picture. Use the remote control and press the power button off then press the 2, 7, 1 and the mute buttons within 5 seconds. The receiver will turn on with 190-0.09 or 196-0.11 displayed depending on the version of microcomputer used. Press volume up button on the remote and the receiver will display the basic adjustments one adjustment at a time. The sub adjustments can be accessed while in the service mode by pressing the menu button on the remote. The data for the sub adjustments can be changed with the channel up and down buttons on the remote. The volume up and down buttons will select the basic adjustments of the service mode. Some other adjustments can be displayed by pressing a number button on the remote, see the table below.

To save changes and exit the service mode, press the power button on the receiver.

AGC

Turn receiver on and tune in an active station. Enter the Service Mode and select TV AGC. Set the data value to minimum, then increase the data value to a point where snow just disappears.

SUB BRIGHTNESS

Tune in an active channel. Set color and contrast to minimum. Set brightness to midrange. Enter the Service Mode, press the menu button and select BRT (sub- bright). Adjust the data value to a point where highlights are just visible.

COLOR - TRAP

Operate the receiver for 15 minutes warm up time. Connect the scope to the base of Q503 on the CRT board. Enter the Service Mode and press "0" on the remote. The screen will display C - Trap, press CH up or down to obtain minimum amplitude on the waveform. Press the power button on the receiver.

ADJUSTMENTS

Remote button to be pressed	Adjustment	Value Range	On-set Value	Notes
Button "1"	The service mode		190 - 0.09	Version of micro computer used displayed on the screen.
			196 - 0.11	Version of micro computer used displayed on the screen.
VOL UP	OSD D/A	ANA - DIG	DIG	Press Channel up and set to Digital.
VOL UP	S - P	On -Off	Off	Set to Off.
VOL UP	C / D -	-	-	Tune in black raster, press 1 for red cut off, press 2 for green cut off, press 3 for blue cut off, the picture will collapse to a horizontal line. Tune in white raster, press 4 for red drive, press 5 for blue drive. See Cut-off & White Balance Adjustment.
VOL UP	AFC 2	Nor / Low	NOR	Set to NOR.
VOL UP	VCO	0 - 63	32	Press button "3", the display will change from pink to green color, and set to auto adjust.
VOL UP	9V	On -Off	Off	Set to Off.
VOL UP	STEREO	On -Off	Off	Set to Off.
Menu	BRT	62 - 190	126	See Sub-Brightness Adjustment.
Menu	CNT	76 - 90	90	Press Channel up and set to 90.
Menu	CLR	50 - 64	56	Press Channel up and set to 56.
Menu	TNT	22 - 85	60	Press Channel up and set to 60.
Menu	V-TINT	22 - 85	60	Press Channel up and set to 60.
Menu	SHARP	On -Off	Off	Set to Off.
Button "6"	B-S	Off, 0-3	Off	Black Stretch Control, Set to Off.
Button "6"	B-S 2	0 - 3	3	Set to 3.
Button "2"	TV AGC	0 -127	62	Press Channel up and set to 62.
Button "2"	H - ADJ	0 - 7	4	Press Channel up and set to 4.
Button "0"	C-TRP	0 - 3	2	See color trap adjustment.
Button "9"	V - S	0 - 63	30	Tune in a crosshatch circle signal, adjust vertical for slight oversize.
Button "9"	V - P	0 - 7	3	Tune in a crosshatch circle signal, adjust for best vertical height.
Button "8"	H-P	0 - 15	8	Tune in a crosshatch circle signal, adjust for best horizontal centering.
Button "7"	Red screen	-	-	See Purity Adjust.
Button "7"	Green screen	-	-	See Purity Adjust.
Button "7"	Blue screen	-	-	See Purity Adjust.

COLOR TEMPERATURE

Tune in a black raster signal. Enter the Service Mode, press vol up button and select C/D, then press "1" button, the display will momentarily show COR in red. Adjust the screen control to obtain a just visible line of one predominant color. Press "2" button, the display will momentarily show COG in green. Press "3" button, the display will momentarily show COB in blue . Adjust the data value of the three cutoff colors for a dim white line on the screen. See C/D adjustments table.

WHITE BALANCE

Tune in a white raster signal. Enter the Service Mode, press vol up button and select C/D, then press "4" button, the display will momentarily show DR in red. Press "5" button, the display will momentarily show DB in blue. Adjust the data value of the two drive colors for the best white raster.Press the power button on the set to exit the service mode. Turn the set on and tune in a black and white picture. Check for best black and white picture at all brightness levels. See C/D adjustments table.

CONVERGENCE

Tune in a dot pattern. Loosen the locking ring. Adjust the 4 pole magnets to converge the red and blue dots at the center of the screen. Adjust the 6 pole magnets to converge the red/blue dots over the green dots at the center of the screen.

NOTE: Rotate the two tabs of each set of magnets equally and opposite to converge vertically and rotate both tabs in the same direction to converge horizontally. Since the 4 and 6 pole magnets interact, repeat the adjustment until center convergence is correct.

Tune in a crosshatch pattern. Remove the rubber wedges between deflection yoke and the CRT. Loosen the clamp screw. Tilt the deflection yoke up or down to converge the vertical lines at the top and bottom of the screen and the horizontal lines at the right and left sides of the screen. Tilt the deflection yoke to the right or left to converge the horizontal line at the top and bottom of the screen and the vertical line at the right and left sides of the screen. Replace the rubber wedges. Tighten the clamp screw. Tighten the locking ring.

SHUT DOWN CIRCUIT

In case the set is in shut down condition, check voltage readings at pins 12, 26, and 27 of IC101.

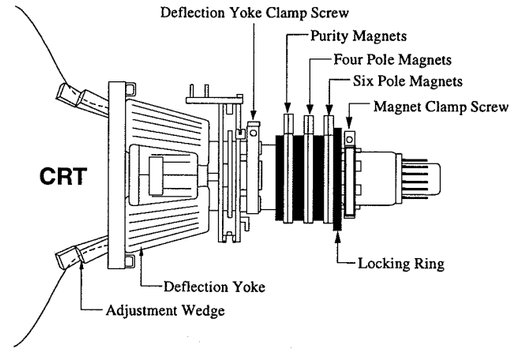
C/D ADJUSTMENTS TABLE

Adjustment	Data Range	On-Set Value
COR (Red Cut Off)	0 - 255	94
COG (Green Cut Off)	0 - 255	119
COB (Blue Cut Off)	0 - 255	66
DR (Red Drive)	0 - 127	74
DB (Blue Drive)	0 - 127	81

PURITY

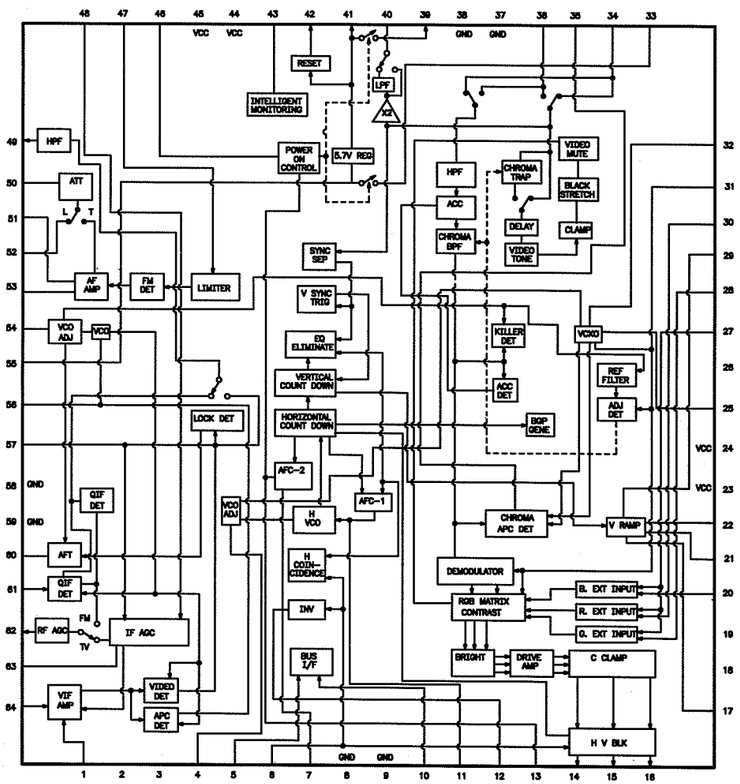
Operate the receiver for 15 minutes warm up time. Use a degaussing coil to demagnetize the CRT. Enter the Service Mode and press "7", the screen will display a red raster, press "7" again to obtain a green raster. Loosen the deflection yoke and move it back as far as possible. Loosen the locking ring and move the purity tabs to center the green band. Slowly slide the deflection yoke forward until a uniform green band is obtained. Check other colors for a uniform screen.Tighten the screw on retainer and the locking ring.

CRT NECK ASSEMBLY

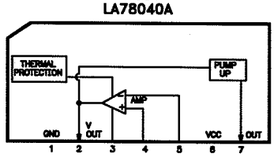


IC FUNCTIONS

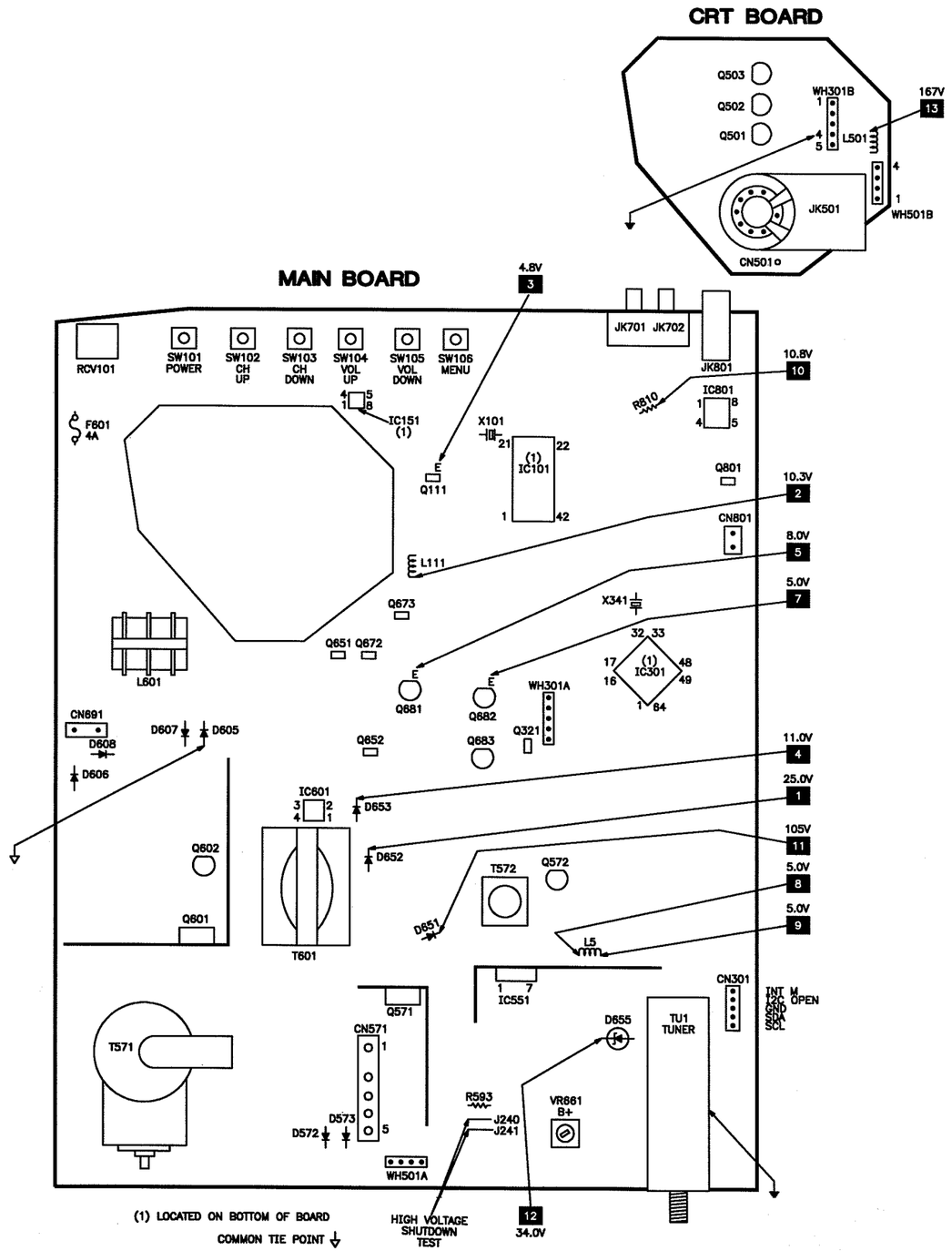
IC301
M61203P



IC551
LA78040A

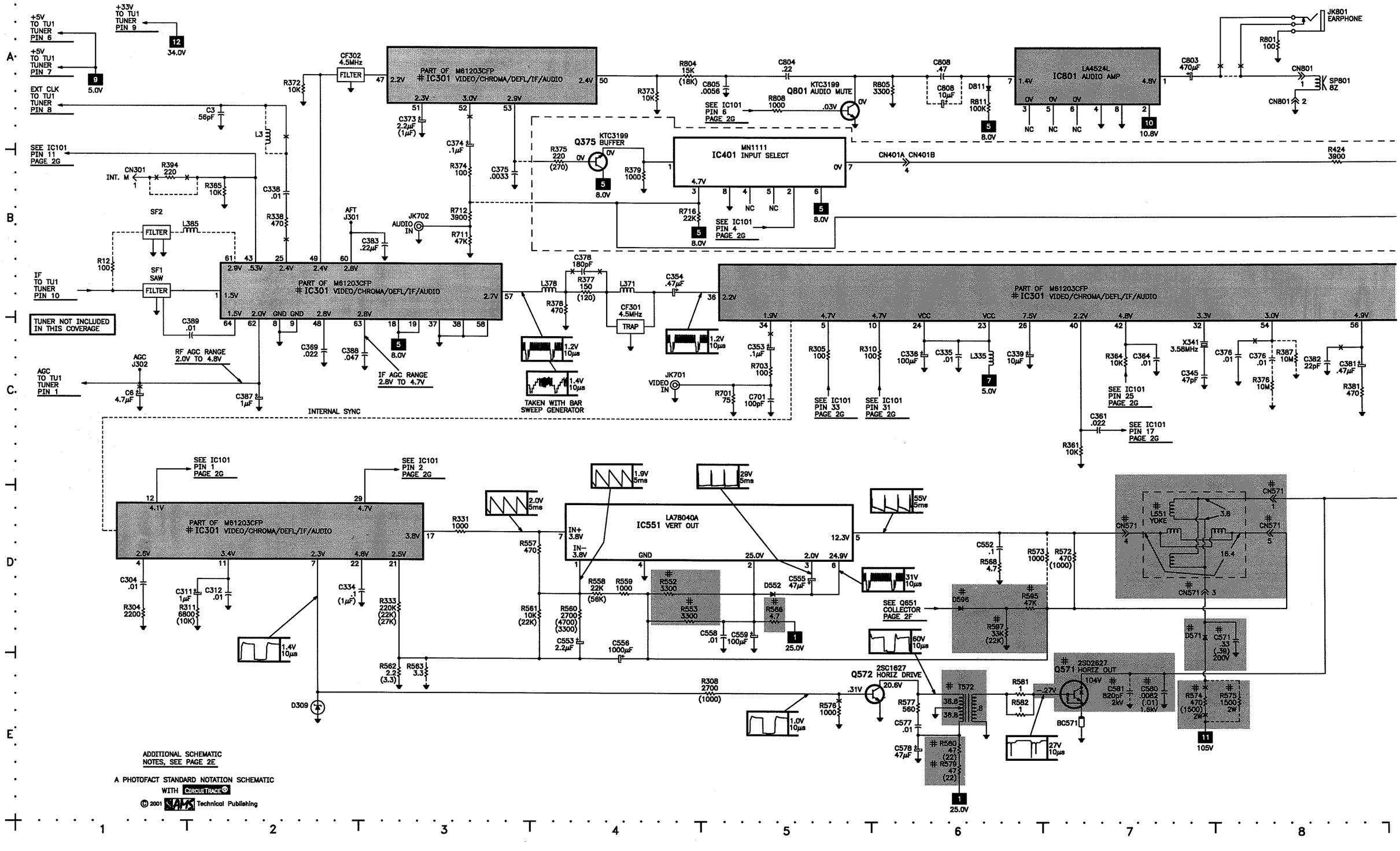


PLACEMENT CHART



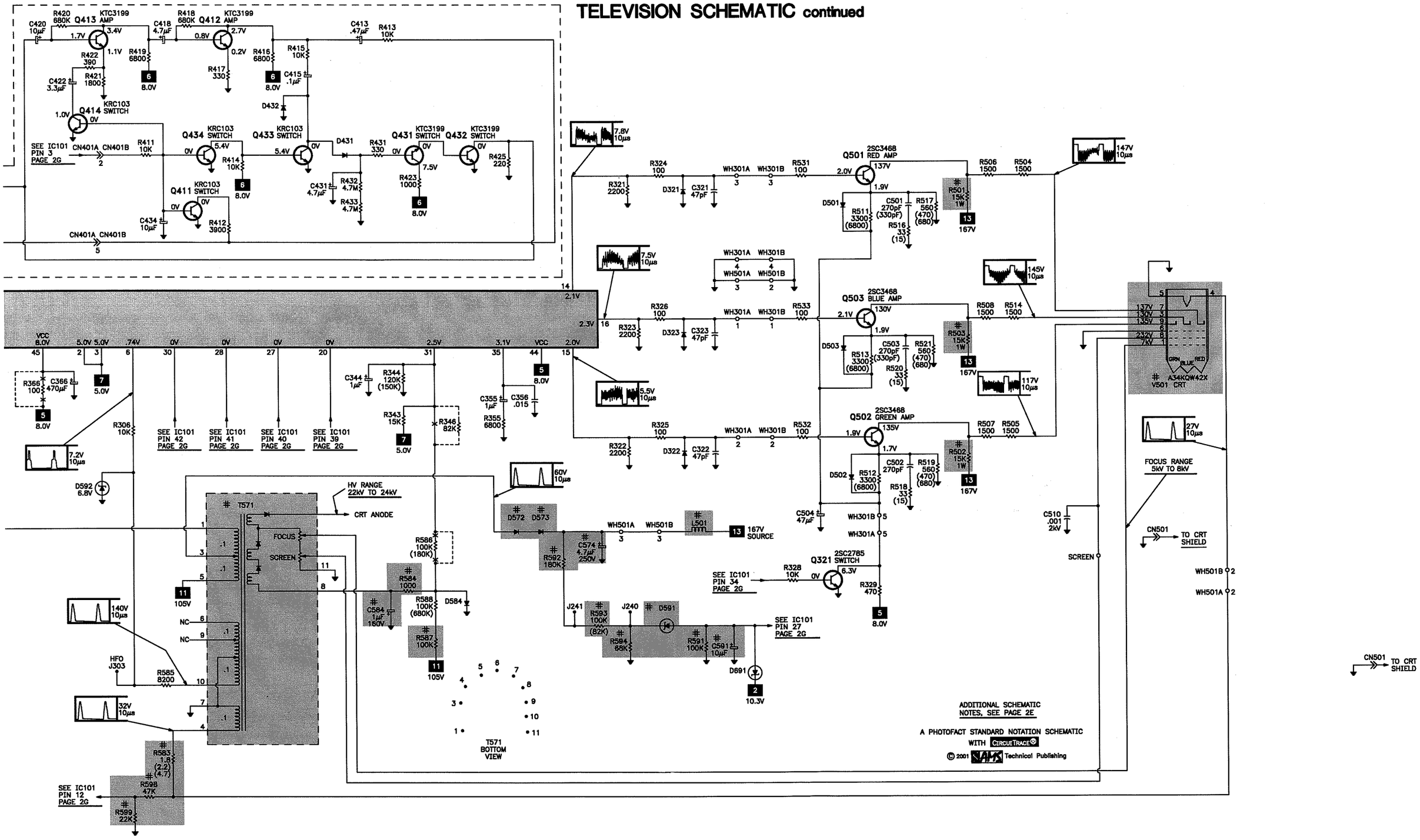
PHILIPS MAGNAVOX MODEL PR1330B101

TELEVISION SCHEMATIC



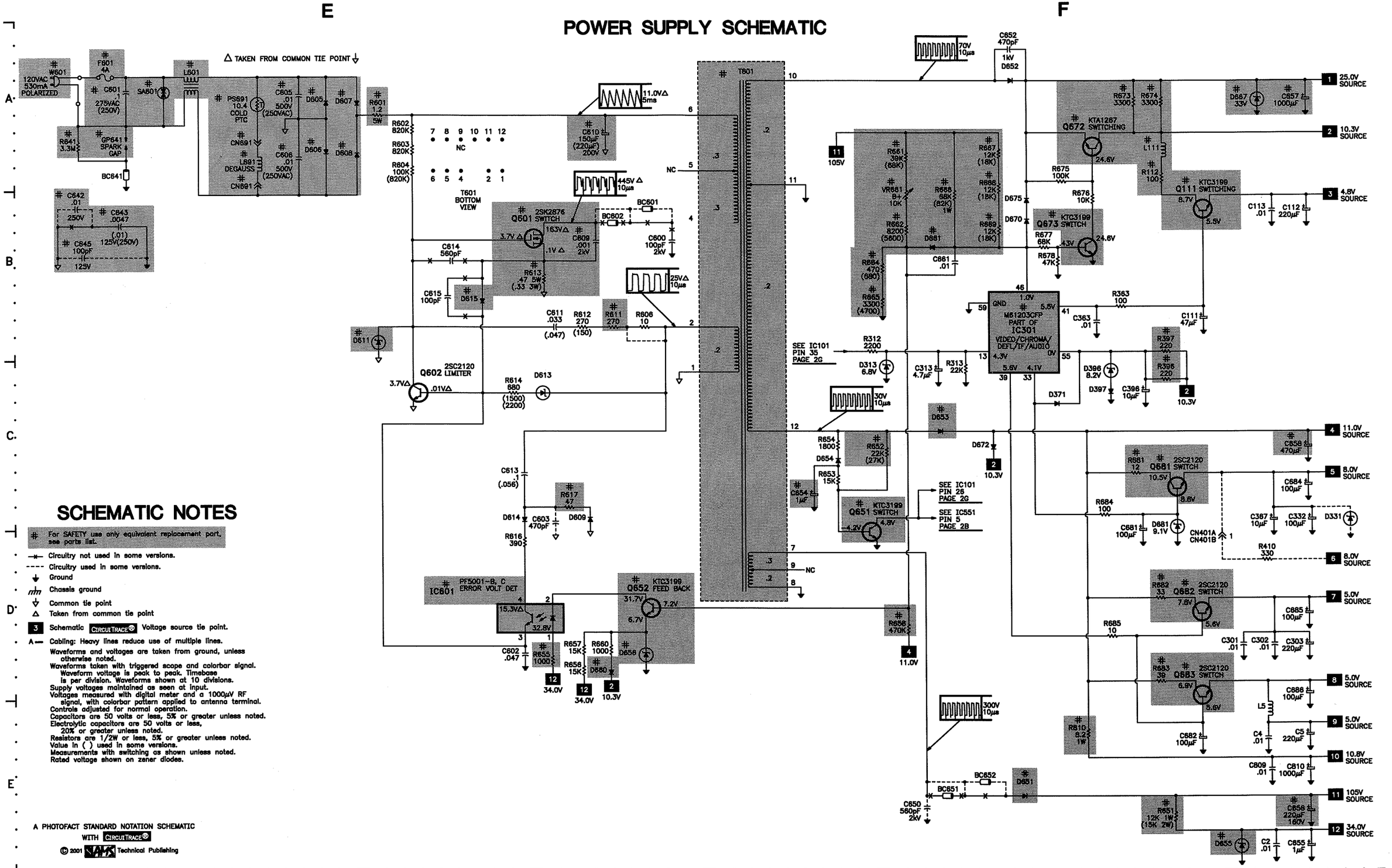
C D

TELEVISION SCHEMATIC continued



9 10 11 12 13 14 15 16

POWER SUPPLY SCHEMATIC



SCHEMATIC NOTES

For SAFETY use only equivalent replacement part, see parts list.

—x— Circuitry not used in some versions.

- - - - Circuitry used in some versions.

Ground

Chassis ground

Common tie point

△ Taken from common tie point

3 Schematic CIRCUITRACE® Voltage source tie point.

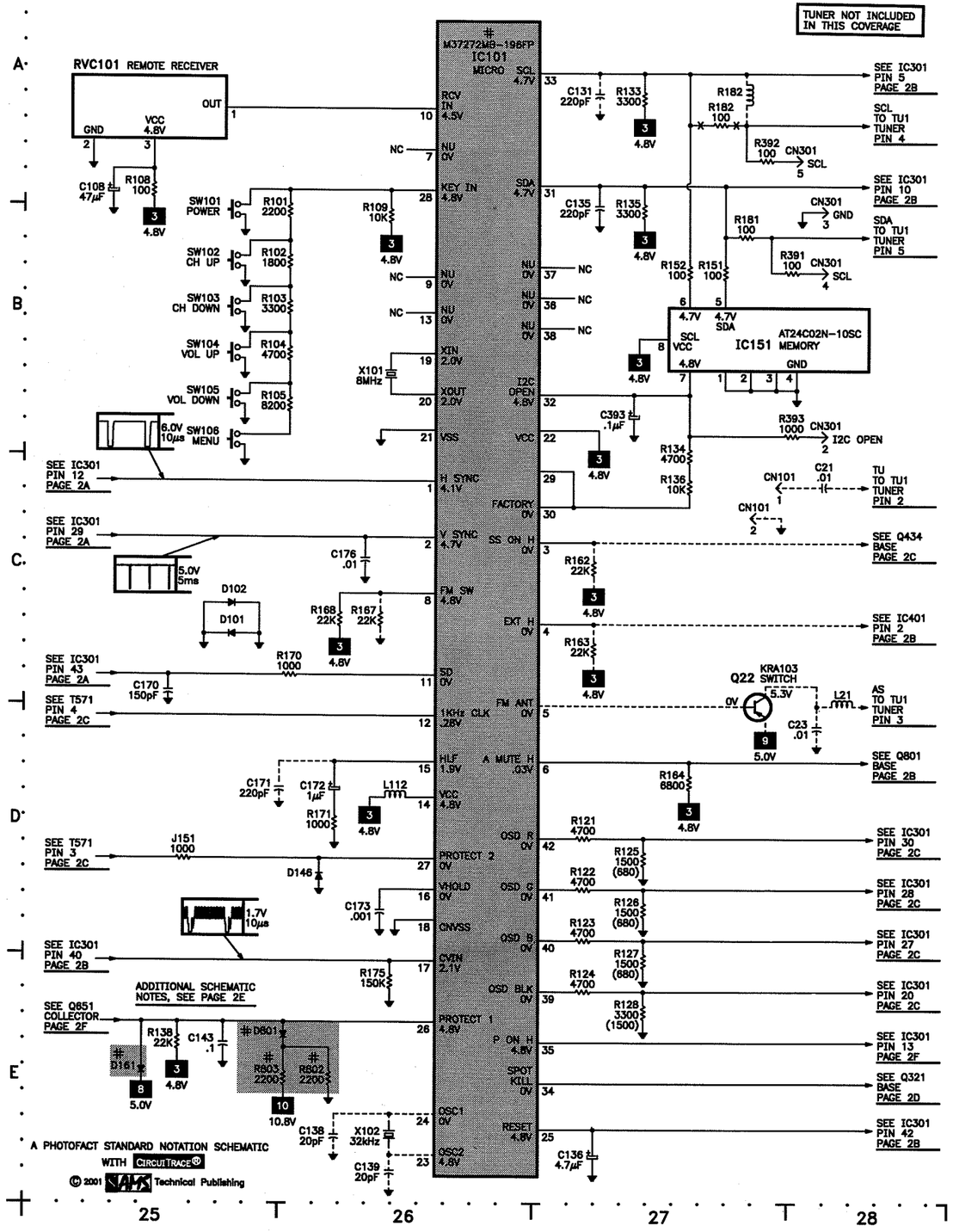
A— Cabling: Heavy lines reduce use of multiple lines.

Waveforms and voltages are taken from ground, unless otherwise noted.
Waveforms taken with triggered scope and colorbar signal. Waveform voltage is peak to peak. Timebase is per division. Waveforms shown at 10 divisions.
Supply voltages maintained as seen at input.
Voltages measured with digital meter and a 1000µV RF signal, with colorbar pattern applied to antenna terminal.
Controls adjusted for normal operation.
Capacitors are 50 volts or less, 5% or greater unless noted.
Electrolytic capacitors are 50 volts or less, 20% or greater unless noted.
Resistors are 1/2W or less, 5% or greater unless noted.
Value in ( ) used in some versions.
Measurements with switching as shown unless noted.
Rated voltage shown on zener diodes.

A PHOTOFACT STANDARD NOTATION SCHEMATIC WITH CIRCUITRACE®

© 2001 Howard W. Sams Technical Publishing

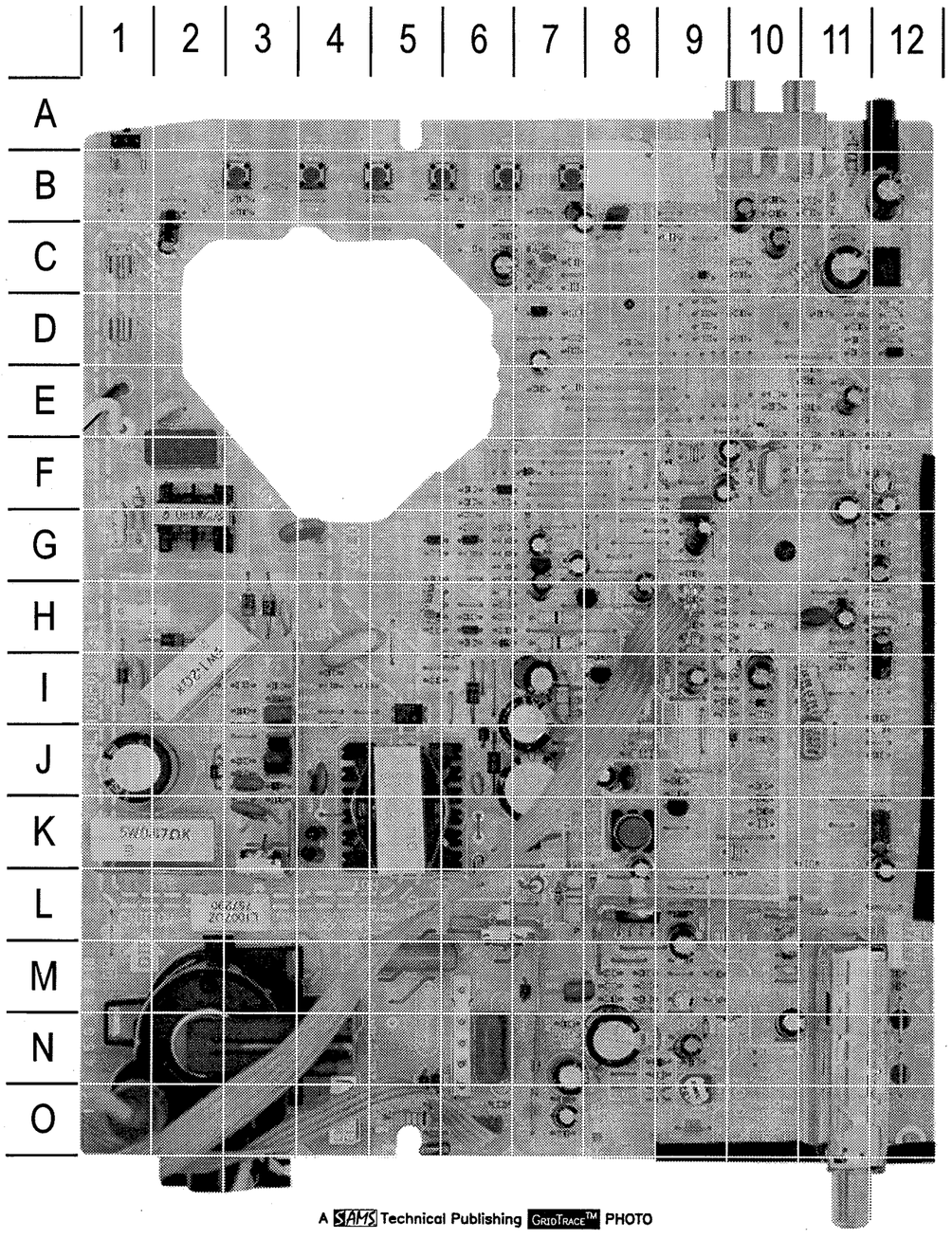
G
SYSTEM CONTROL SCHEMATIC


TUNER NOT INCLUDED IN THIS COVERAGE
RVC101 REMOTE RECEIVER
OUT
GND
VCC 4.8V
IC101 MICRO
M37272M8-196FP
SEE IC301 PIN 5 PAGE 2B
SCL TO TU1 TUNER PIN 4
SEE IC301 PIN 10 PAGE 2B
SDA TO TU1 TUNER PIN 5
SW101 POWER
SW102 CH UP
SW103 CH DOWN
SW104 VOL UP
SW105 VOL DOWN
SW106 MENU
IC151 AT24C02N-10SC MEMORY
X101 8MHz
SEE IC301 PIN 12 PAGE 2A
SEE IC301 PIN 29 PAGE 2A
SEE Q434 BASE PAGE 2C
SEE IC401 PIN 2 PAGE 2B
SEE IC301 PIN 43 PAGE 2A
SEE T571 PIN 4 PAGE 2C
SEE Q321 BASE PAGE 2D
SEE IC301 PIN 42 PAGE 2B
SEE T571 PIN 3 PAGE 2C
SEE IC301 PIN 30 PAGE 2C
SEE IC301 PIN 28 PAGE 2C
SEE IC301 PIN 27 PAGE 2C
SEE IC301 PIN 40 PAGE 2B
SEE IC301 PIN 20 PAGE 2C
SEE Q651 COLLECTOR PAGE 2F
SEE IC301 PIN 13 PAGE 2F
SEE Q801 BASE PAGE 2B
ADDITIONAL SCHEMATIC NOTES, SEE PAGE 2E
KRA103 Q22 SWITCH
A PHOTOFACT STANDARD NOTATION SCHEMATIC
WITH CIRCUITRACE
© 2001 Technical Publishing

SCHEMATIC COMPONENT LOCATION GUIDE

BC571	E7	C393	B27	D146	D26	L21	D28	R170	C25	R433	B11	R641	A17
BC601	B20	C396	C23	D161	E25	L111	A23	R171	D26	R501	B14	R651	E23
BC602	B20	C413	A10	D309	E2	L112	D26	R175	E26	R502	C14	R652	C21
BC641	B17	C415	A10	D313	C21	L335	C6	R181	B27	R503	C14	R653	C21
BC651	E22	C418	A9	D321	B12	L371	B4	R182	A27	R504	B14	R654	C21
BC652	E22	C420	A9	D322	C12	L378	B4	R182	A27	R505	C14	R655	D20
C2	E24	C422	A9	D323	C12	L385	B1	R304	D1	R506	B14	R656	D20
C3	A2	C431	B10	D331	D24	L501	D12	R305	C5	R507	C14	R657	D20
C4	E24	C434	B9	D371	C22	L551	D7	R306	C9	R508	B14	R658	D22
C5	E24	C501	B14	D396	C23	L601	A17	R308	E4	R511	B13	R660	D20
C6	C1	C502	C14	D397	C23	L691	A18	R310	C5	R512	C13	R661	A22
C21	C28	C503	C14	D431	B10	PS691	A18	R311	D2	R513	C13	R662	B22
C23	D28	C504	D13	D432	A10	Q111	B23	R312	C21	R514	B14	R664	B21
C108	B25	C510	D15	D501	B13	Q375	B4	R313	C22	R516	B14	R665	B21
C111	B23	C552	D6	D502	C13	Q411	B10	R321	B12	R517	B14	R666	B22
C112	B24	C553	D4	D503	C13	Q412	A10	R322	C12	R518	C14	R667	A22
C113	B24	C555	D5	D552	D5	Q413	A9	R323	C12	R519	C14	R668	B22
C131	A27	C556	E4	D571	D7	Q414	A9	R324	B12	R520	C14	R669	B22
C135	B27	C558	D5	D572	D11	Q431	B11	R325	C12	R521	C14	R673	A23
C136	E27	C559	D5	D573	D12	Q432	B11	R326	B12	R531	B13	R674	A23
C138	E26	C571	D8	D584	D11	Q433	B10	R328	D13	R532	C13	R675	B22
C139	E26	C574	D12	D591	D12	Q434	B10	R329	D13	R533	B13	R676	B23
C143	E25	C577	E6	D592	C9	Q572	E5	R331	D3	R552	D4	R677	B22
C170	C25	C578	E6	D596	D6	Q601	B19	R333	D3	R553	D4	R678	B22
C171	D25	C580	E7	D605	A18	Q651	D21	R338	B2	R557	D4	R681	C23
C172	D26	C581	E7	D606	A18	Q672	A23	R343	C11	R558	D4	R682	D23
C173	D26	C584	D11	D607	A18	Q673	B23	R344	C11	R559	D4	R683	D23
C176	C26	C591	D13	D608	A18	Q681	C23	R346	C11	R560	D4	R684	C23
C301	D24	C600	B20	D609	D20	Q682	D23	R355	C11	R561	D4	R685	D23
C302	D24	C601	A17	D611	C19	Q683	E23	R361	C7	R562	E3	R701	C5
C303	D24	C602	D19	D613	C19	Q801	A5	R363	B23	R563	E3	R703	C5
C304	D1	C603	D20	D614	D19	Q22	D27	R364	C7	R566	D5	R711	B3
C311	D2	C605	A18	D615	B19	Q321	D13	R365	B2	R568	D6	R712	B3
C312	D2	C606	A18	D651	E22	Q501	B13	R366	C9	R572	D7	R716	B5
C313	C22	C609	B20	D652	A22	Q502	C13	R372	A2	R573	D6	R801	A8
C321	B13	C610	A20	D653	C22	Q503	B13	R373	A4	R574	E7	R802	E26
C322	C13	C611	B20	D654	C21	Q571	E7	R374	B3	R575	E8	R803	E26
C323	C13	C613	C19	D655	E23	Q602	C19	R375	B4	R576	E5	R804	A4
C332	C24	C614	B19	D656	D20	Q652	D20	R376	C8	R577	E6	R805	A6
C334	D2	C615	B19	D660	D20	R12	B1	R377	B4	R579	E6	R808	A5
C335	C6	C642	B17	D661	B22	R101	B26	R378	C4	R580	E6	R810	E23
C336	C6	C643	B17	D667	A24	R102	B26	R379	B4	R581	E6	R811	A6
C338	B2	C645	B17	D670	B22	R103	B26	R381	C8	R582	E6	RVC101	A25
C339	C6	C650	E22	D672	C22	R104	B26	R387	C8	R583	E9	SA601	A17
C344	C11	C652	A22	D675	B22	R105	B26	R391	B27	R584	D11	SF1	B1
C345	C7	C654	C21	D681	D23	R108	B25	R392	A27	R585	E9	SF2	B1
C353	C5	C655	E24	D691	D13	R109	B26	R393	C27	R586	D11	SP801	A8
C354	B4	C656	E24	D801	E26	R112	B23	R394	B1	R587	D11	SW101	B25
C355	C11	C657	A24	D811	A6	R121	D27	R396	C23	R588	D11	SW102	B25
C356	C12	C658	C24	F601	A17	R122	D27	R397	C23	R591	D12	SW103	B25
C361	C7	C661	B22	GP641	A17	R123	E27	R410	D24	R592	D12	SW104	B25
C363	B23	C681	D23	IC101	A26	R124	E27	R411	B9	R593	D12	SW105	B25
C364	C7	C682	E23	IC151	B27	R125	D27	R412	B10	R594	D12	SW106	C25
C366	C9	C684	C24	IC301	A3	R126	D27	R413	A11	R595	D6	T571	D10
C367	C24	C685	D24	IC301	B2	R127	E27	R414	B10	R597	D6	T572	E6
C369	C2	C686	D24	IC301	B22	R128	E27	R415	A10	R598	E9	T601	B21
C373	A3	C701	C5	IC301	B6	R133	A27	R416	A10	R599	E9	V501	C15
C374	B3	C803	A7	IC301	D2	R134	C27	R417	A10	R601	A19	VR661	B22
C375	B3	C804	A5	IC401	B5	R135	B27	R418	A9	R602	A19	W601	A17
C376	C8	C805	A5	IC551	D4	R136	C27	R419	A9	R603	A19	X101	B26
C376	C8	C808	A6	IC601	D19	R138	E25	R420	A9	R604	A19	X102	E26
C378	B4	C808	A6	IC801	A7	R151	B27	R421	A9	R606	B20	X341	C7
C381	C8	C809	E24	J151	D25	R152	B27	R422	A9	R611	B20		
C382	C8	C810	E24	JK701	C4	R162	C27	R423	B11	R612	B20		
C383	B3	CF301	C4	JK702	B3	R163	C27	R424	B8	R613	B20		
C387	C2	CF302	A2	JK801	A8	R164	D27	R425	B11	R614	C19		
C388	C3	D101	C25	L3	B2	R167	C26	R431	B11	R616	D19		
C389	C1	D102	C25	L5	E24	R168	C26	R432	B11	R617	C20		

MAIN BOARD



A SAMS Technical Publishing GRIDTRACE™ PHOTO

MAIN BOARD, GRIDTRACE LOCATION GUIDE

BC571	L7	C376	J12	C810	C11	GP641	G1	R136	B9	R557	M8	R664	H6
BC602	K4	C378	H12	CF301	H12	IC101*	D8	R138	B9	R558	M8	R665	H6
BC641	O5	C381	I12	CF302	F11	IC151*	C6	R151	C6	R559	M8	R666	I7
BC651	K6	C382	I12	CN301	L12	IC301*	G10	R152	C6	R560	M8	R667	I7
C2	M10	C383	L12	CN571	M6	IC551	L8	R164	D7	R561	M8	R668	I7
C3	K11	C387	I11	CN691	H2	IC601	I5	R168	D7	R562	N9	R669	I7
C4	L10	C388	H11	CN801	E12	IC801	C12	R170	E11	R566	J8	R673	G6
C5	N10	C389	I10	D101	B1	J151	G8	R171	C7	R568	M7	R674	G6
C6	K12	C393	B7	D102	B1	JK701	A10	R175	C7	R572	N7	R675	F6
C108	C2	C396	H11	D146	C9	JK702	A11	R181	K10	R574	L7	R676	F6
C111	D7	C552	M7	D161	L10	JK801	A12	R182	K10	R576	J9	R677	G6
C112	C6	C553	M9	D309	I10	L3	K10	R304	J10	R577	J9	R678	F6
C113	C6	C555	K8	D313	J10	L5	K10	R305	J10	R579	J8	R681	G7
C131	C7	C556	N8	D321	H9	L111	E7	R306	J10	R580	J8	R682	H7
C135	B8	C558	M9	D322	H9	L112	C7	R308	I9	R581	L7	R683	H7
C136	B10	C559	M9	D323	H9	L335	F9	R310	I9	R582	L7	R684	G7
C143	C9	C571	N6	D371	G11	L371	H12	R311	I9	R583	O5	R685	I8
C170	D7	C574	N7	D396	H11	L378	I11	R312	H9	R584	O7	R701	B10
C171	C7	C577	J8	D397	H11	L601	G2	R313	I9	R585	O5	R703	B10
C172	C7	C578	J8	D552	L9	PS691	G4	R321	H9	R586	O9	R711	B12
C173	B8	C580	M5	D571	M7	Q111	D7	R322	H9	R587	L8	R712	B12
C176	E7	C584	O7	D572	N5	Q321	H8	R323	H9	R588	N10	R801	A11
C301	H10	C591	N9	D573	N5	Q571	L6	R324	H9	R591	N9	R802	C11
C302	I10	C600	J4	D584	O7	Q572	K9	R325	H9	R592	N8	R803	C11
C303	I10	C601	F2	D591	N9	Q601	K3	R326	G9	R593	N8	R804	D11
C304	I10	C602	J3	D592	O5	Q602	J3	R328	D8	R594	N9	R805	D12
C311	I9	C605	H3	D596	M8	Q651	G5	R329	I9	R595	N9	R808	D11
C312	H9	C606	I1	D605	H3	Q652	H6	R331	M9	R597	N9	R810	C10
C313	I9	C609	K3	D606	I1	Q672	G6	R333	G9	R598	O6	R811	D11
C321	H9	C610	J1	D607	H3	Q673	F6	R338	F9	R599	O9	RVC101	A1
C322	H9	C611	J3	D608	H2	Q681	G7	R343	F9	R601	I2	SA601	E2
C323	H9	C613	I3	D609	I4	Q682	H8	R344	F9	R602	I2	SF1	J11
C332	G9	C614	J3	D611	J3	Q683	I8	R355	E10	R603	I3	SW101	B3
C334	F9	C615	J2	D613	I3	Q801	D12	R361	E10	R604	I3	SW102	B4
C335	F9	C643	H4	D614	I4	R101	B3	R363	E11	R606	I3	SW103	B5
C336	F10	C652	J6	D615	J2	R102	B5	R364	E11	R611	J3	SW104	B5
C338	F9	C654	H5	D651	K7	R103	B5	R365	E11	R612	J3	SW105	B6
C339	F9	C655	M10	D652	J6	R104	B6	R366	E11	R613	K1	SW106	B7
C344	F9	C656	J7	D653	I6	R105	B6	R372	F12	R614	I3	T571	N2
C345	F10	C657	I7	D654	H5	R108	B3	R373	D11	R616	I4	T572	K8
C353	C10	C658	I7	D655	M10	R109	B3	R374	G12	R617	I4	T601	K5
C354	F12	C661	H6	D656	G6	R112	E7	R377	H12	R641	G1	TU1	O11
C355	E10	C681	G7	D660	G6	R121	D9	R378	I11	R651	I8	VR661	O9
C356	F10	C682	G8	D661	G6	R122	D9	R381	J12	R652	G5	WH301A	H9
C361	E10	C684	H7	D667	J6	R123	D9	R387	I12	R653	G5	WH501A	O6
C363	F11	C685	H8	D670	G6	R124	D9	R391	M12	R654	G5	X101	C7
C364	E11	C686	I8	D672	G6	R125	D10	R392	M12	R655	I5	X341	F10
C366	F11	C701	B10	D675	G6	R126	D10	R393	K12	R656	I6		
C367	E11	C803	B12	D681	G7	R127	C10	R394	E11	R657	H6		
C369	G12	C804	D12	D691	F7	R128	C10	R396	H9	R658	H5		
C373	F12	C805	D12	D801	B11	R133	C6	R397	H9	R660	H6		
C374	G12	C808	D12	D811	D11	R134	B7	R552	M8	R661	I8		
C375	H12	C809	C11	F601	C1	R135	C6	R553	M8	R662	H6		

* Located on bottom of board.

PARTS LIST

SEMICONDUCTORS

Item No.	Type No.	Mfr. Part No.	NTE Part No.
D101	1N4148	4835 130 37048	NTE519
	1SS133(T-77)	4835 130 37235	NTE519
D102	1N4148	4835 130 37048	NTE519
	1SS133(T-77)	4835 130 37235	NTE519
D146	MTZJT-775.6B	4835 130 37329	-
# **D161**	1N4148	4835 130 37048	NTE519
	1SS133(T-77)	4835 130 37235	NTE519
D309, 13	MTZJT-776.8B	4835 130 37881	-
D321	1N4148	4835 130 37048	NTE519
	1SS133(T-77)	4835 130 37235	NTE519
D322	1N4148	4835 130 37048	NTE519
	1SS133(T-77)	4835 130 37235	NTE519
D323	1N4148	4835 130 37235	NTE519
	1SS133(T-77)	4835 130 37048	NTE519
D331	MTZJ-778.2B	4835 130 37963	-
D371	1N4148	4835 130 37048	NTE519
	1SS133(T-77)	4835 130 37235	NTE519
D396	MTZJT-778.2B	4835 130 37963	-
	MTZJT-778.2C	4835 130 37963	-
D397	1N4148	4835 130 37048	NTE519
	1SS133(T-77)	4835 130 37235	NTE519
D431, 32	1N4148	4835 130 37048	NTE519
D501	1N4148	4835 130 37048	NTE519
	1SS133(T-77)	4835 130 37235	NTE519
D502	1N4148	4835 130 37048	NTE519
	1SS133(T-77)	4835 130 37235	NTE519
D503	1N4148	4835 130 37048	NTE519
	1SS133(T-77)	4835 130 37235	NTE519
D552	ERA1502	4835 130 37515	NTE116
# **D571, 72, 73**	ERA22-02	4835 130 37788	NTE552
# **D584**	1N4148	4835 130 37048	NTE519
	1SS133(T-77)	4835 130 37235	NTE519
# **D591**	MTZJT-7736B	4835 130 37785	-
D592	MTZJT-776.8B	4835 130 37881	-
# **D596**	1N4148	4835 130 37048	NTE519
	1SS133(T-77)	4835 130 37235	NTE519
# **D605** Thru			
# **D608**	ERB12-06	4835 130 37897	NTE116
# **D609**	1N4148	4835 130 37048	NTE519
	1SS133(T-77)	4835 130 37235	NTE519
# **D611**	MTZJT-7715B	4835 130 37604	-
D613	MTZJT-773.0B	4835 130 37972	-
D614	1N4148	4835 130 37048	NTE519
	1SS133(T-77)	4835 130 37235	NTE519
# **D615**	1N4148	4835 130 37048	NTE519
D651	ERC25-06	4835 130 37898	NTE552
	ERC18-04	4835 130 37994	-
# **D652, 53**	ERB44-02	4835 130 37944	NTE552
D654	1N4148	4835 130 37048	NTE519
	1SS133(T-77)	4835 130 37235	NTE519
# **D655**	MTZJT-7736B	4835 130 37785	-
# **D656**	MTZJT-776.8B	4835 130 37881	-
# **D660**	1N4148	4835 130 37048	NTE519
	1SS133(T-77)	4835 130 37235	NTE519
# **D661**	1N4148	4835 130 37048	NTE519
	1SS133(T-77)	4835 130 37235	NTE519
# **D667**	1ZC33	4835 130 37958	-
D670	1N4148	4835 130 37048	NTE519
	1SS133(T-77)	4835 130 37235	NTE519
D672	1N4148	4835 130 37048	NTE519
	1SS133(T-77)	4835 130 37235	NTE519
D674	MTZJT-7712B	4835 130 37705	-
D675	1N4148	4835 130 37048	NTE519
	1SS133(T-77)	4835 130 37235	NTE519
D681	MTZJT-779.1B	4835 130 37506	-
# **D691**	MTZJT-7715B	4835 130 37604	-

 # For SAFETY use only equivalent replacement part.

SEMICONDUCTORS continued

Item No.	Type No.	Mfr. Part No.	NTE Part No.
# **D801**	1N4148	4835 130 37048	NTE519
	1SS133(T-77)	4835 130 37235	NTE519
D811	1N4148	4835 130 37048	NTE519
	1SS133(T-77)	4835 130 37235	NTE519
# **IC101** (1)	M37272M8-190FP	4835 209 17654	-
# **IC101** (2)	M37272M8-196FP	4835 209 17656	-
IC151	AT24C02N-10SC	4835 209 47434	-
# **IC301**	M61203CFP	4835 209 47501	-
IC401	MM1111XFFE	4835 209 47513	-
# **IC551**	LA78040A	4835 209 47512	-
	LA78040	4835 209 47503	-
# **IC601**	PF5001-B,C	4835 130 48166	-
# **IC801**	LA4524L	4835 209 47502	-
Q22	KRA103M	4835 130 47907	NTE2358
# **Q111**	KTC3199(GR)	4835 130 47914	NTE85
	2SC2785(F)	4835 130 47722	NTE2361
Q321	KTC3199(GR)	4835 130 47914	NTE85
	2SC2785(F)	4835 130 47722	NTE2361
	2SC1815-GR	4835 130 47358	NTE85
Q375	KTC3199(GR)	4835 130 47914	NTE85
Q411	KRC103M	4835 130 47909	NTE2357
Q412, 13	KTC3199(GR)	4835 130 47914	NTE85
Q414	KRC103M	4835 130 47909	NTE2357
Q431, 32	KTC3199(GR)	4835 130 47914	NTE85
Q433, 34	KRC103M	4835 130 47909	NTE2357
Q501	2SC3468(D)-AE	4835 130 47981	NTE399
	2SC2482	4835 130 48046	NTE399
Q502	2SC3468(D)-AE	4835 130 47981	NTE399
	2SC2482	4835 130 48046	NTE399
Q503	2SC3468(D)-AE	4835 130 47981	NTE399
	2SC2482	4835 130 48046	NTE399
Q551	2SC2785(F)	4835 130 47722	NTE2361
# **Q571**	2SD2627LS-FEC-YB11	4835 130 48195	-
# **Q572**	2SC1627Y-TPE2	4835 130 48141	NTE289A
# **Q601**	2SK2876-54MR	4835 130 48194	-
# **Q602**	2SC2120-Y-TPE2	4835 130 48047	NTE289A
	2SC2120-O-TPE2	4835 130 47756	NTE289A
# **Q651**	KTC3199(GR)	4835 130 47914	NTE85
	2SC2785(F)	4835 130 47722	NTE2361
# **Q652**	KTC3199(GR)	4835 130 47914	NTE85
	2SC2785(F)	4835 130 47722	NTE2361
# **Q672**	KTA1267(GR)	4835 130 47913	NTE2362
	2SA1175(F)	4835 130 47645	NTE2362
# **Q673**	KTC3199(GR)	4835 130 47914	NTE85
	2SC2785(F)	4835 130 47722	NTE2361
# **Q681**	2SC2120-Y-TPE2	4835 130 48047	NTE289A
	2SC2120-O-TPE2	4835 130 47756	NTE289A
# **Q682**	2SC2120-Y-TPE2	4835 130 48047	NTE289A
	2SC2120-O-TPE2	4835 130 47756	NTE289A
# **Q683**	2SC2120-Y-TPE2	4835 130 48047	NTE289A
	2SC2120-O-TPE2	4835 130 47756	NTE289A
Q801	KTC3199(GR)	4835 130 47914	NTE85
	2SC2785(F)	4835 130 47722	NTE2361

 # For SAFETY use only equivalent replacement part.
(1) Used in models MT1301B101, MT1901B101, PR1330B101, PR1910B101, PR1913X101, PR1929C101, and PR1930B101.
(2) Used in model PR1335B101.

SET 4452 Page 4

PARTS LIST continued

CAPACITORS & ELECTROLYTICS

	Item No.	Rating	Mfr. Part No.
	C510	.001 10% 2kV	4835 122 47551
		.001 10% 2kV	4835 122 37048
#	**C571**	.33 5% 200V	4835 121 47639
		.33 5% 200V	4835 121 47692
		.39 5% 250V	4835 121 47689
		.39 5% 200V	4835 121 47667
#	**C574**	4.7µF 20% 250V	4835 124 47465
#	**C580**	.0082 5% 1.6kV	4835 121 47491
		.01 5% 1.6kV	4835 121 47622
#	**C581**	820pF 2kV	4835 122 47681
#	**C584**	1µF 20% 160V	4835 124 47516
#	**C591**	10µF 20% 50V	4835 124 47037
	C600	100pF 10% 2kV	4835 122 47695
#	**C601**	.1 20% 275VAC	-
		.1 20% 250V	4835 121 47025
#	**C605**	.01 250VAC	4835 122 47502
		.01 +80% -20% 500V	4835 122 47601
#	**C606**	.01 250VAC	4835 122 47502
		.01 +80% -20% 500V	4835 122 47601
#	**C609**	.001 10% 2kV	4835 122 47551
		.001 10% 2kV	4835 122 37048
#	**C610**	150µF 10% 200V	4835 124 97105
		220µF 200V	4835 124 47022
#	**C643**	.0047 125V	4835 125 97035
		.0047 1% 125V	4835 122 47705
#	**C645**	100pF 125V	4835 122 97119
		100pF 125V	4835 122 97117
	C652	470pF 10% 1kV	4835 122 47471
		470pF 1kV	4835 122 45747
#	**C654**	1µF 20% 50V	4835 124 47045
		1µF 20% 50V	4835 124 47014
#	**C656**	220µF 20% 160V	4835 124 47756
#	**C657**	1000µF 20% 35V	4835 124 47143

 # For SAFETY use only equivalent replacement part.

TEST EQUIPMENT

Test equipment listed by participating manufacturer illustrates typical or equivalent equipment used by Sams engineers to obtain measurements. This equipment is compatible with most types used by field service technicians.

Equipment	Sencore No.	Equipment	Sencore No.
Oscilloscope	SC3100	Isolation Transformer	PR570
Generators		Capacitance Analyzer	LC102
RGB	CM2125	CRT Analyzer	CR7000
Multiburst Signal	VG91	AC Leakage Tester	PR570
Color Bar	VG91	Inductance Analyzer	LC102
TV Stereo	VG91	Flyback Yoke Tester	TVA92
Digital VOM	SC3100	Field Strength Meter	SL753
Frequency Meter	SC3100	Transistor Tester	TF46
Hi-Voltage Probe	HP200	Horizontal Analyzer	HA-2500
Accessory Probes	TP212	Video Analyzer	VG91, TVA92

CONTROLS & RESISTORS

	Item No.	Function/Rating	Mfr. Part No.
#	**PS691**	10.4 Cold PTC	QNZZ 45B L7R0A
#	**R112**	100 5% 1/4W	4835 110 57003
#	**R394, 96, 97**	220 5% 1/4W	4835 110 57037
#	**R501, 02, 03**	15K 5% 1W	4835 116 87019
#	**R552, 53**	3300 5% 1/4W	4835 110 57046
#	**R566**	1.8 5% 1/4W Fusible	4835 110 57196
#	**R566**	4.7 5% 1/4W Fusible	4835 113 97074
#	**R574**	470 5% 2W	4835 116 67277
#	**R579, 80**	47 5% 1/4W	4835 110 57019
		22 5% 1/4W	4835 110 57036
#	**R583**	1.8 5% 1W	4835 116 57073
#	**R584**	1000 5% 1/4W	4835 110 57025
#	**R587**	100K 5% 1/4W	4835 110 57185
#	**R591**	100K 5% 1/4W	4835 110 57185
#	**R592**	180K 5% 1/4W	4835 110 57259
#	**R593**	100K 5% 1/4W	4835 110 57185
#	**R594**	68K 5% 1/4W	4835 110 57168
#	**R595**	47K 5% 1/4W	4835 110 57189
#	**R597**	33K 5% 1/4W	-
		22K 5% 1/4W	4835 110 57211
#	**R598**	47K 5% 1/4W	4835 110 57189
#	**R599**	22K 5% 1/4W	4835 110 57038
#	**R601**	1.2 10% 5W Wirewound	4835 113 87008
#	**R611**	270 5% 1/4W	4835 110 57041
#	**R613**	.47 10% 5W Wirewound	4835 113 87024
		.33 5% 3W	4835 116 67306
#	**R617**	47 5% 1/4W	4835 110 57019
#	**R641**	3.3M 5% 1/2W	4835 110 47117
#	**R651**	12K 5% 1W	4835 116 57567
		15K 5% 2W	4835 116 57041
#	**R652**	27K 5% 1/4W	4835 111 37182
		22K 5% 1/4W	4835 110 57038
#	**R654**	1800 5% 1/4W	4835 110 57033
#	**R655**	1000 5% 1/4W	4835 110 57025
#	**R658**	470K 5% 1/4W	4835 110 57225
#	**R661**	39K 5% 1/4W	4835 110 57262
		68K 5% 1/4W	4835 110 57168
#	**R662**	8200 5% 1/4W	4835 110 57264
		5600 5% 1/4W	4835 110 57304
#	**R664**	680 5% 1/4W	4835 110 57054
		470 5% 1/4W	4835 110 57167
#	**R665**	3300 5% 1/4W	4835 110 57046
		4700 5% 1/4W	4835 110 57051
#	**R666**	68K 5% 1W	4835 116 57793
		82K 5% 1W	4835 116 67212
#	**R667**	12K 5% 1/4W	4835 110 57282
		18K 5% 1/4W	4835 110 57034
#	**R668**	12K 5% 1/4W	4835 110 57282
		18K 5% 1/4W	4835 110 57034
#	**R669**	12K 5% 1/4W	4835 110 57282
		18K 5% 1/4W	4835 110 57034
#	**R673, 74**	3300 5% 1/4W	4835 110 57046
#	**R681**	12 5% 1/4W	4835 110 57252
#	**R682**	33 5% 1W	4835 116 57233
#	**R683**	39 5% 1W	4835 116 57356
#	**R802, 03**	2200 5% 1/4W	4835 110 57079
#	**R810**	8.2 5% 1W	4835 116 67061
#	**SA601**	Varistor	4835 252 27024
#	**VR661**	10K B+	4835 100 97516

 # For SAFETY use only equivalent replacement part.

COILS & TRANSFORMERS

	Item No.	Function/Rating		Mfr. Part No.
	BC571	Ferrite Bead		LLBF 00S TU026
	BC601	Ferrite Bead		LLBF 00Z TU021
	BC602	Ferrite Bead		LLBF 00Z F8001
	BC641	Ferrite Bead		LLBF 00Z TU021
	BC651, 52	Ferrite Bead		LLBF 00Z TU021
	L3	18µH		4835 157 58179
	L5	22µH		4835 157 57373
	L21	4.7µH		4835 157 57374
#	**L111**	22µH		4835 157 57373
	L112	22µH		4835 157 57641
	L335	100µH		4835 157 57798
	L371	12µH		4835 157 58071
	L378	2.2µH		4835 157 57639
	L385	2.2µH		4835 157 57639
#	**L501**	180µH		4835 157 58066
#	**L551** (1)	Yoke	Horiz 2.75mH Vert 30.6mH	4835 150 17162
#	**L551** (2)	Yoke		4835 150 17174
#	**L551** (3)	Yoke		4835 150 17171
#	**L551** (4)	Yoke		4835 150 17175
#	**L551** (5)	Yoke		4835 150 17168
#	**L551** (6)	Yoke		4835 150 17173
#	**L551** (7)	Yoke		4835 150 17172
#	**L551** (8)	Yoke		-
#	**L601**	Line Filter		4835 154 97202
		Line Filter		4835 154 97205
#	**L691** (9)	Degaussing		4835 157 97107
#	**L691** (10)	Degaussing		4835 157 97103
	R182	1µH		4835 157 58144
#	**T601** (9)	Switching		4835 148 87398
#	**T601** (10)	Switching		4835 148 87399
#	**T571** (9)(11)	Horizontal Output		4835 140 67201
#	**T571** (10)(11)	Horizontal Output		4835 140 67202
#	**T572**	Horizontal Drive		4835 148 87394

 # For SAFETY use only equivalent replacement part.
(1) Used with CRTS A34KQW42X, A34KPU02XX, and A34JLL90X(W).
(2) Used with CRT A34AGT13X.
(3) Used with CRT A34LEX10X.
(4) Used with CRT A34LRQ90X(VW).
(5) Used with CRT A48JLL90X, A48LGS30X, and A48LRH93X.
(6) Used with CRT A48LGS30X.
(7) Used with CRT A48LRH93X(W).
(8) Bonded part of CRT A34AGT13X09K.
(9) Used in models MT1901B101, PR1910B101, PR1913X101, PR1929C101, and PR1930B101.
(10) Used in models MT1301B101, PR1330B101, and PR1335B101.
(11) Screen and focus controls are part of T571.

MISCELLANEOUS

	Item No.	Description	Mfr. Part No.	Notes
	CF301	Trap	4835 153 97032	4.5MHz
	CF302	Filter	4835 153 97029	4.5MHz
#	**F601**	Fuse	4835 253 97153	4A, 125V
#	**GP641**	Spark Gap	4835 252 27023	-
#	**JK501** (1)	Socket	4835 265 97453	CRT
#	**JK501** (2)	Socket	JSCC 220 PK003	CRT
#	**JK501** (3)	Socket	4835 265 97481	CRT
	JK701	Jack	4835 265 97455	Assembly
	JK702	Jack	4835 265 97456	Assembly
	JK801	Jack	4835 265 97306	Earphone
	RVC101	Receiver	4835 210 27062	Remote Control, PIC-26042SR-2
		Receiver	4835 210 27056	Remote Control, PIC-26042SR
	SF1	Filter	4835 153 97062	SAW, TSF5229P
	SF2	Filter	4835 153 97063	SAW, TSB1205P
	SP801	Speaker	4835 240 97044	3" Round, 8 Ohms, 3W.
		Speaker	4835 240 17019	-
	SW101	Switch	4835 276 17322	Power
		Switch	4835 276 17331	Power
	SW102	Switch	4835 276 17322	Channel Up
		Switch	4835 276 17331	Channel Up
	SW103	Switch	4835 276 17322	Channel Down
		Switch	4835 276 17331	Channel Down
	SW104	Switch	4835 276 17322	Volume Up
		Switch	4835 276 17331	Volume Up
	SW105	Switch	4835 276 17322	Volume Down
		Switch	4835 276 17331	Volume Down
	SW106	Switch	4835 276 17322	Menu
		Switch	4835 276 17331	Menu
	TU1	Tuner	4835 210 47112	UHF/VHF, B8045AR
		Tuner	4835 210 47109	UHF/VHF, B8055AR
		Tuner	4835 210 47109	UHF/VHF, TEDH9X203A
#	**V501**	CRT	4835 131 97015	A34JLL90X(W)
		CRT	4835 131 97027	A34AGT13X
		CRT	4835 131 97015	A34KPU02XX
		CRT	4835 131 97015	A34LEX10X
		CRT	4835 131 97015	A34KQW42X
		CRT	4835 131 97015	A34AGT13X09K
		CRT	4835 131 97015	A34LRQ90X(VW)
		CRT	4835 131 97018	A48JLL90X
		CRT	4835 131 97026	A48LGS30X
		CRT	4835 131 97025	A48LRH93X(W)
#	**W601**	Line Cord	4835 321 17153	AC, Polarized
		Line Cord	4835 321 17146	AC, Polarized
	X101	Resonator	4835 242 77163	8MHz
	X102	Crystal	4835 242 77091	32kHz
	X341	Crystal	FXD3 55L LN003	3.58MHz
		Fuse Holder	XH01 Z00 LY001	For F601 (2 Used)
		Fuse Holder	XH01 Z00 DK001	For F601 (2 Used)
		Magnet (3)	XM04 000 BV009	Purity/Convergence
		Magnet (4)	XM04 000 BV003	Purity/Convergence
		PC Board	000 ESA 03697	Main, MMA301
		PC Board	000 ESA 03722	Main, MMA302
		PC Board	000 ESA 03700	Main, MMA303
		PC Board	000 ESA 03703	Main, MMA305
		Transmitter	4835 218 37292	Remote
		Transmitter	4835 218 37282	Remote
		Transmitter	4835 218 37291	Remote
		Transmitter	4835 218 37281	Remote
		Transmitter	4835 218 37285	Remote
		Transmitter	4835 218 37293	Remote
		Wedge	XV10 000 T4001	Yoke Positioning (3 Used)

 # For SAFETY use only equivalent replacement part.
(1) Used in models PR1330B101, and PR1335B101.
(2) Used in model MT1301B101.
(3) Used in models MT1901B101, PR1910B101, PR1913X101, PR1929C101, and PR1930B101.
(4) Used in models MT1301B101, PR1330B101, and PR1335B101.